SCHOOL PHYSICIANS' BULLETIN

VOL. III MARCH, 1933 No. 3

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Calcium-Phosphorus Deficiencies IN DENTAL CARIES

THE *Annual Review of Biochemistry*, 1932, cites as among the more important developments in biochemistry for 1931 studies attesting *the clinical value of vitamin D in arresting dental caries.*[1]

"Clinical trials of the value of vitamin D in arresting dental decay in children have been strikingly successful," the report states further.

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Price,[3] Boyd and Drain,[4] Davis,[5] and the Toveruds[6] are among the numerous other authorities whose clinical studies reveal that vitamin D improves tooth structure or inhibits decay.

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Devoted to the interests and advancement of School Physicians and the service rendered by them. Your participation by membership is solicited.

VOL. III MARCH, 1933 No. 3

THE FAMILY PHYSICIAN

L. W. CHILDS, M. D.

Supervisor of Health Service, Cleveland, Ohio

The family physician is in a strong position to either aid or disparage the work of the school physician or the school nurse. Deserving cases are referred to him as a matter of course for treatment or correction. Teachers are referred to him for examination. Pupils are induced to consult him for ailments which they would otherwise neglect. During the adolescent period the habit of periodical examinations is or should be acquired by pupils. In later years the family physician will perform this service of periodical examinations.

When these pupils become parents they are appreciative of the services that their family physicians can render in early immunization of their children against diphtheria, smallpox and possibly scarlet fever. They become solicitous for advice concerning the care and development of their children, reflecting their interest in preventive medicine. Practitioners must be prepared to meet this interest and center their attention on the preventive side of medicine as well as on the curative. Preventive medicine is coming to the foreground and health service in the schools is paving the way.

Depression is here and general practitioners are suffering with the rest of humanity. They have witnessed a vast increase of patients applying for aid in free dispensaries and a corresponding decrease in their own private practice. Dissatisfaction has resulted in the manner of referral of patients to the hospital dispensary.

In order to mitigate this dispensary abuse, new principles for admission to dispensaries have been formulated by the Academy of Medicine in the city of Cleveland and suburbs. The schools, social agencies and dispensaries have entered into a compact with the Academy of Medicine to carry out the following principles:

NEW PRINCIPLES FOR ADMISSION TO DISPENSARIES

(*a*) All social agency workers agree to refer all cases which, at one time or another, have been under the care of a private physician, back to that physician. No time limit is to be applied to this principle.

(*b*) It is agreed that all other persons who now or ultimately might be able to pay something should be referred by the social worker to a neighborhood physician.

(*c*) The out-patient departments of all the hospitals agree, through their social service departments, to follow the two courses of action outlined above.

APPLICATION OF PRINCIPLES

1. The plan is to be applied to new admissions only (*i. e.,* cases not under treatment by dispensaries at time this plan is inaugurated).

2. To handle the "traffic" and other problems inherent in the plan, there should be a central committee composed of representatives of the major groups involved, to which individual problems can be presented by the social worker, the patient and the physician; and by which modifications of the plan, if the need arises, may be recommended.

3. From the questionnaires which have been returned to the Study Committee, the Academy will compile lists of physicians who are willing to cooperate in the plan. These lists together with the names, addresses, telephone numbers, specialties and office hours, will be supplied to the social agencies.

4. Where there is no family physician to whom the patient will return, the agency worker will ask the patient to select a physician from a list.

5. The central committee will supply to all agency workers a conveniently sized pad of forms in triplicate with carbons to be used as referral slips. The slips shall contain place for the name and address of the patient, the name and address of the doctor to whom the case is referred, the name and address of the agency and of the worker making the reference. At the bottom of the slip shall be a line to be filled out by the doctor if he does not keep the patient, but refers him on to a dispensary.

6. The worker shall give the patient one slip to take to the doctor; shall send to the central committee the second slip; shall keep on file with the agency the third slip. An individual number shall be printed on each set of slips for identification purposes and if possible agencies referring the larger groups shall have distinct colors for their slips for easy identification in filing.

7. The patient shall take the slip to the doctor, who will then proceed as follows:

(*a*) He will treat the patient for such fee as he and the patient agree is fair, or

(*b*) He shall treat the patient free or on a deferred payment basis, or

(*c*) He shall refer the patient to a dispensary (filling out the line at the bottom of the slip and giving it back to the patient to take to the dispensary).

8. Dispensaries receiving patients with slips shall send these slips to the central committee for filing with the corresponding slip mailed in by the referring agency.

PHYSICAL CONDITION AND SCHOOL SUCCESS

EARL H. COLEMAN, M. D.

Director of Health and Physical Education, Fresno, California

In almost any grade in the public schools a wide range in the ages of the pupils will be found. A few are young for the grade, more are older than they would be if they had made normal progress, and the remainder are of normal age.

When physical examinations were being given recently the results were reported separately for the three groups, the under age, at age, and over age groups. Eight hundred eleven children in grades one to six inclusive distributed among nine elementary schools were examined. Defects were reported under the following headings: eyes, ears, tonsils, teeth, mal-nutrition and heart. Notices were sent to parents of those pupils who had reportable defects with a request that attention be given to them. The following is a tabulation of the report:

PHYSICAL DEFECTS OF SCHOOL CHILDREN

	Under Age	At Age	Over Age	Repeaters*	Total
Number of pupils examined	120	164	527	240	811
Pupils with no reportable defects	85	102	238	101	425
Per cent	71.	62.	45.	42.	52.
Eyes defective	4	7	48	18	59
Per cent	3.3	4.2	9.1	7.5	7.1
Ears defective	1	0	6	4	7
Per cent	.8	.0	1.1	1.6	.9
Tonsils	19	25	149	81	293
Per cent	15.8	15.2	28.3	33.7	36.
Teeth	13	27	136	67	176
Per cent	10.8	16.5	25.9	27.9	22.
Mal-nourished	3	7	23	9	33
Per cent	2.5	4.2	4.3	3.7	4.
Heart	1	3	6	3	10
Per cent	.8	1.8	1.1	1.2	1.2
Notice to Parents	37	74	421	198	532
Per cent	30.8	45.1	80.1	82.5	66.
Favorable response	17	17	55	22	89
Per cent†	45.9	22.9	13.	11.1	16.8

* Pupils in this column are also included in the over age group.

† Based on notices sent to parents.

A study of this report reveals a number of interesting facts and stimulates a consideration of the relationship which may exist among them:

1. The percentage of pupils having no reportable defects is larger in the younger groups, becoming smaller as the age increases—under age 70.8%, at age 62.1%, over age 45.3%.
2. The percentage of favorable responses to notices sent to parents was larger in the younger groups, becoming smaller as the age increases—under age 45.9%, at age 22.9%, over age 13%. A re-

sponse was considered "favorable" when the parent indicated an intention to see that the defect was attended to.

3. No apparent correlation was observed between the financial conditions of parents and the interest manifested in correction of defects as indicated by the responses to notices. If any difference exists it would seem that it was in favor of the poorer parents. This may have resulted in part from the fact that local clinics were open to those who were not able to pay for treatment.

It seems probable from this investigation that the presence of physical defects is the cause of considerable failure to advance normally in school work. This may result from inability to attend thoroughly to the instruction as in the case of poor sight and hearing or inability to put forth as much effort as the other pupils do. Again some of these defects may cause irregularity in attendance which will result in slower progress. This will be the case where there is mal-nutrition or infected tonsils.

The analysis of the report on the attitude of parents as indicated by their response or lack of response to notices sent seems to point to a casual relationship. Pupils from homes where parents take an interest in their physical condition seem to make more rapid advancement in their school work. It is probable that the interest manifest in physical welfare of the child is also manifest in his school progress. This will doubtless serve as an incentive to better effort on his part and bring success where otherwise failure would result.

The question naturally arises, "What can be done about it?" In the first place, increased effort should be made to carry the message home to parents, to inform them of the importance of the physical condition of their children as well as of the effect of a demonstration of interest in their progress in their scholarship. Also the school itself should use every effort, through school dentists, occulists, physicians and nurses, etc., to discover, report and when possible correct disabilities.

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SCHOOL HEALTH ON INDIAN RESERVATIONS

During the school year 1931-32 the New York State Departments of Education and Health made a joint study of the health of school children on the eight Indian Reservations in the State. Seven hundred and sixty-eight children were given a careful medical examination. Ten hundred and fifty-one defects were found. Most of these were nutritional and dental. The relative frequency of the various defects was much the same as found among rural white school children. Contrary to expectation and common belief, but little tuberculosis was discovered. Teachers on the reservations took a keen interest in the survey and contributed much to its success. Local agencies including physicians adjacent to the reservations assisted in the follow-up work. Twenty-seven per cent of the defects were treated during the school year. Future studies are expected to be made.

CORRECTION OF SPEECH DISORDERS

*JOSEPH C. SOLOMON, M. D.
Freeport, N. Y.

The question of proper speech is one factor in the bringing up of children that is neglected probably more than any other single one. This question is receiving more attention from scientific sources than it ever has before, but as yet the lay public is not at all aware of the progress made, nor even of the existence of the problem.

From time immemorial speech disorders in children have been regarded as a normal development of speech. The defective speech has been looked upon by the laity, as well as the medical profession, as something the child will "outgrow." Although it is true that a large percentage of stutterers and stammerers get over their handicaps before they have reached adult life, it is not because they have "outgrown" them in the true sense of the term. Through schooling and increased powers of observation and imitation the child has in reality "learned" to speak correctly rather than "outgrown" the disorder. If, on the other hand, this process of learning correct speech were to take place in all children, there would be no speech disturbances in adults. We all know, however, that a large percentage of the population is handicapped by some defect of speech.

If all individuals exhibiting a tendency to show any type of speech impediment were placed in the proper hands during childhood, there would be fewer cases of these disturbances in later life. During childhood parents are apt to neglect speech difficulties, thinking them "cute," yet these same individuals in later life can be made very miserable with decided feelings of inferiority on account of what then is a handicap.

From the physicians' point of view a speech disorder is, in most instances, just as much a behavior problem as bed wetting, temper tantrums and habit tics. There are, of course, the organic cases such as hare-lip, tongue-tied and kindred disorders, but these are by far in the minority. Adequate search for causes in the environment of the child must be made before treatment can be begun. The correction of these alone will correct many cases, but unfortunately will not do so in all. Our nervous systems become what is known medically as "conditioned" to certain habits. For example, the child who obtains candy when it asks for "tandy" is satisfied that the word is said correctly because it obtains the desired result. It is not a simple matter to break up the association, once formed.

In America it is the rule to interchange the terms "stuttering" and "stammering." In Europe, however, the term stammering is applied to the inability to articulate certain consonants, whereas, stuttering implies the repetition of letters, syllables, or words. Lisping and kindred disorders would, therefore, come in the category of stammering.

A complete classification of the various mispronounced letters is not necessary in an article of this sort, but suffice it to say that due to the misuse of tongue, lips, teeth and palate a variety of defects can be produced.

The training of a child with a speech disorder based on functional causes is not entirely a simple matter. It requires great patience and understanding on the part of the physician, as well as complete co-operation of the family. For the average stammerer (in the European sense) daily exercises must be indulged in for a period of from four to nine weeks. More severe cases, especially where there is a multitude of defects, requires training sometimes for as long as six months or even longer. This seems like a great deal of time expended, but the results are well worth the efforts. Stuttering is a somewhat different problem, but it is also amenable to treatment. Here the problem is not so much in the articulation of consonants, but in giving proper volume to the vowels. This involves disturbances in the breathing mechanism; so that in the treatment special breathing exercises must be perfected before an effect on the speech can be brought about.

If a child, who was formerly a hopeless stutterer or stammerer can be returned to society with better speech, a noble work, indeed, has been performed.

* Nassau County (N. Y.) *Medical News.*

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CONTRIBUTIONS OF THE SCHOOL DENTAL PROGRAM

DR. J. M. WISAN

Chairman of the Council on Mouth Hygiene and Public Instruction of the New Jersey State Dental Society

In 1882 Dr. Louis Ottofy examined the mouths of school children in two communities, Lebanon, Illinois, and Grand Forks, Dakota Territory. He found that 91% of the pupils had defective teeth.[1] Examinations conducted fifty years later (1932), in communities without school dental service, indicated that more than 90% of the children required dental treatment. No improvement in dental conditions can be claimed for those localities that have not instituted dental health programs.

In Clark Township (N. J.) in 1930, a mouth mirror and explorer examination revealed that 97% of the school children required dental attention with an average of 7 carious cavities per pupil.

In 1932, after two years of a fairly intensive program of health education and dental service, it was found that 78% of the children still required dental treatment. The improvement in mouth conditions was shown in the fact that there were only 2 carious cavities per pupil and that there were *no* permanent teeth to extract in the first six grades. Yet in spite of this progress, in having most of the permanent

teeth in place and in sound condition, more than two-thirds of the pupils *required dental treatment.*

To evaluate school dental service we must ascertain the following:

(1) Are the permanent teeth being protected?

(2) Does improved mouth health improve the physical and mental development of the child?

(3) Do pupils attend to dental defects when school Dental Service is lacking?

Dental periodicals have published many statements from communities proving that a carefully planned and conducted dental program has increased the proportion of sound, permanent teeth. Athens and Atlanta (Georgia), Peoria (Illinois), and Cedar Rapids (Iowa) are just a few examples of "tooth conscious" communities.

It can be stated definitely, therefore, that including dental health education in the school curriculum and providing dental services for indigent pupils improves dental conditions to a remarkable degree. (Deciduous teeth are chiefly a pre-school problem.)

Moreover, many authorities maintain that improvements in dental conditions have helped in the mental development of school children. Without desiring to belittle the value of dental services, we must admit that this opinion cannot be scientifically verified for in most cases where the number of "left backs" has been reduced after the inclusion of the dental program, other improvements in the school work. Though we cannot definitely prove this point, it would seem that the presence of dental infection would impair the child's efficiency. Certainly, if dental infection impairs the health of an individual, it must have at least an indirect influence on the *"animi facultates."*

There is little doubt that oral infections like other foci of infection bring about systemic ailments and lowered vitality. Dr. F. Blaine Robotham states: "Because of the less dense arrangement of the bones during childhood and the freer circulation, it is possible for infections to spread rapidly."[2]

The White House Conference on Child Health and Protection stated:

> "The eradication of foci of infection in the mouth is one of the first important steps in the prevention of systemic diseases. It is the duty of public health officials to promote any educational or service program that will reduce the morbidity incident to dental disease and improve the health of the children in their jurisdiction."[3]

Are dental defects treated when school dental programs are lacking? Wherever data on this point have been gathered it has been proved that—

(1) In industrial communities where the population consists of low salaried individuals and in rural communities that lack the services of a dentist, children's teeth are sadly neglected.

(2) A dental health education program causes an increased appreciation of dental services.

The reader can obtain further information by referring to Dr. Michael Davis's book, "Clinic, Hospitals and Health Centers," and the bulletin, "Community Dental Service" by the same author.

It is significant to compare the opinions of contemporary school men, who have dealt with school dental clinics, with the opinions of school men before they had this experience. Undoubtedly, school superintendents are best able to judge the value of the various school programs. In 1902, a questionnaire sent to school superintendents of New Jersey showed that "six county superintendents favored the appointment of school dentists while six county superintendents opposed the idea (of 21 superintendents only 12 answered this question). Eight city superintendents were in favor of the school dentist while eleven were opposed (of 26 city superintendents 19 answered)."[4] In other words, a majority voted "Nay." In 1932 a questionnaire sent out to all the city and county superintendents of New Jersey by the writer in collaboration with Dr. Ireland, Director of Physical and Health Education, indicated that not one school superintendent in New Jersey disapproved of including a well conducted dental clinic within the school system. This unanimity in favor of the school clinic is conclusive evidence that school clinics have been tried and found eminently satisfactory.

Summarizing, then, school dental programs of education and service have definitely improved mouth conditions as well as the health of the pupils. However, it must be realized that up to now the incidence of dental decay has not been reduced. Indications are that research in diet control will eventually present us with means of improving the structure of the teeth. Until this is accomplished we must not fail to "carry on" dental service programs in the schools.

[1] *Journal of Illinois Dental Society*, August, 1884, page 372.
[2] *Journal of American Dental Association*, February, 1932, page 273.
[3] Public Health Organization, Sec. II, Public Health Service and Administration.
[4] *Dental Items of Interest*, Vol. XXIV, page 600.

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HEALTH EDUCATION FROM THE VIEWPOINT OF THE SCHOOL OFFICIAL

J. B. McMANUS
Superintendent of Schools, La Salle, Ill.

A few generations ago schools did not concern themselves with the health of pupils. That was a matter left solely to parents until the prevalence of a disease had reached the proportion of an epidemic. Then the community assumed control and discharged the duties pertaining to health indifferently well.

During the last twenty years the schools' responsibility has undergone a decided change. Schools are now doing everything within reason, which their finances will permit, to safeguard the life and health of the pupils. They are now trying to turn out healthy, happy children, well started on the path of successful adaptation to their environment and to the rules of civilized life. Education, in its broader sense, now includes instruction as to proper diet, proper conduct, proper use of one's mind, body and emotions, to the end that a healthy body, a healthy mind and healthy morals may be adequately built up and maintained.

Schools are interested in the physical well-being of the children from the standpoint of efficiency and attendance. The advent of the public health movement in education has greatly reduced the number of absentees and enhanced the efficiency record of those in attendance.

The frequent scourge of contagious diseases is now practically eliminated. The close cooperation of the teachers and school officials with the health department enables the physician and nurses to detect a contagious disease in its incipiency, thereby enabling them to isolate such children and prevent the spread of the germ. The examination of pre-school children by physicians to detect correctible defects now rightly throws some of the burden on the parents, to see that those defects are corrected before the child enters school.

A knowledge of virtues does not insure their practice; neither does a knowledge of health habits or rules insure their observance. The class room teacher cooperating with the parents must do everything in her power to induce pupils to practice the rules of right living and to thoroughly master those health habits which are designed to protect their health, increase their efficiency, and prolong their lives.

When fully awake to the dangers of infection, parents and pupils will work, with teachers and physicians, in an effort to ward off disease. Teachers must work with the Health Department to get the idea across to the parents and children, that certain diseases are caused by germs, which may, by precaution, be prevented from getting into the system.

Teachers need never be so busy that they cannot spare the time to inspect the hands, the faces and eyes of the pupils for cleanliness and for signs of a communicable disease. They should immediately take steps to remedy any defects found. Through the persistent efforts of Dr. Arlington Ailes, of the Tri-City Hygienic Institute, a record form of health work was put into effect in the local schools with the result that in 1925 the school system scored 456 out of a possible 1000 points, while in 1930 the system scored 785 points.

A child's conduct, character and mental attitude are acquired very largely from the environment in which he lives. To bring about the necessary change in attitude and mode of living, the school teacher must not only be sure of her facts, and concise in her statements, but

she must be very tactful so as not to reflect discredit on the parents and home life of the children. It is more what a teacher is than what she says.

She should exemplify health in her daily work thus encouraging pupils to attain the good health standard she has set. Teachers should cultivate an observing attitude that they may be able to promptly detect or recognize bad heating, ventilating and lighting conditions and regulate them. All this instruction, proper living examples and abundant practice in health habits should develop in the pupils sane, wholesome attitudes toward life and health.

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A SYLLABUS OF SOME IMPORTANT HEALTH RULES AND HABITS

By HYGIENIC INSTITUTE
La Salle, Ills.

I. Be moderate in all things. Do not over or under eat, use beverages to excess, keep late hours, or establish other dangerous or unhealthy habits.

II. Establish good, regular daily habits, especially as to eating, sleeping and bowel movement.

III. Meals should be balanced so that the daily ration contains milk, butter, meat, eggs, vegetables and fruits. There should be some coarse foods, plenty of salads and water. Plenty of time should be taken at the meal and the food should be well chewed.

IV. Your homes should be heated to a temperature of 68 degrees F., to 70 degrees F. Provide for a change of air, without a direct draft through windows and doors, in moderate temperature. Bedroom windows should be opened at night, but regulated according to outside temperature and the force and direction of the wind.

V. Keep clean. It is very important to bathe the entire body at least once a week, brush the teeth daily, and especially to wash the hands after toilet and before eating.

VI. Take eight to twelve hours of sleep every night, according to age, in a cool, well-ventilated room.

VII. Wear loose, porous clothing, suitable in weight and warmth to the season and the weather. Better wear light clothing and be prepared with suitable outer garments to be worn as circumstances warrant.

VIII. Avoid needless and close contact with those suffering from a communicable disease to which you are susceptible. Avoid others when you are sick yourself. Cover the mouth or nose in coughing or sneezing. Keep fingers, pencils, etc., out of the mouth.

IX. Inspect closely and report to the nurse or physician any un-

healthy sign of the children's hands, face, eyes, teeth, gums, tonsils, ears and especially defects of vision and hearing.

X. Encourage every child that has not been vaccinated or immunized against smallpox, typhoid fever, diphtheria and scarlet fever to have this done.

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HEALTH EDUCATION

In recent years Health Education has become quite a fad, among some people. Educators have become interested in the subject and more appreciative of its need.

Much thought has been given to it by able people. Many plans have been evolved. Some have been more successful than others. None has commanded general approval or adoption.

Many syllabuses have been prepared, and many others, no one knows how many, are now in preparation. All are supposedly for health instruction and guidance to school children. Some of them are too advanced, more suited to college students. Some of them contain matter highly undesirable to teach to children, while others stress some specialty at the expense of the rest of the curriculum.

It may well be said that there is no phase of education in which such a confusion exists as in that of Health Education.

Though all seem to agree as to its desirability, in an Educational Program, there is no agreement as to *what* should be taught, *how* it should be taught, or *who* should teach it. To be sure, the subject is still in its infancy. Like most infants of human creation, it was brought into the world by the doctor, the original health teacher, who in his busy life entrusted its care to hands mostly untrained.

As might be expected, some have survived better than others, but most of them have suffered the same infant mortality that years ago played such havoc with babyhood.

Like the infant of old, and many infants of today, Health Education is being overfed. Its food is too solid, of too great a variety, unwisely chosen, and too often changed for its digestive system. It lacks simplicity and digestibility. Most of its caretakers are untaught and untrained in childhood health education. They have never been given an opportunity to learn the subject, much as they appreciated their need to do so.

In attempting to teach health education, they feel about as helpless as does the average young mother with her first baby. With the young mother nature generally came to her rescue and saved the baby. The same application of nature's program would prove equally as valuable to health education.

Why not get nearer to nature's need of the growing child and let her play a more important and guiding part in the program of health education for children?

Why not incorporate in a program of health education more of the

simple essentials of childhood development? Why not teach and train children in the things they can understand and utilize in their daily lives? It should not be difficult to do so.

Some day we will have a simplified syllabus in Health Education—one that will fit into the school system without disrupting it. Some day our teacher training institutions will teach and train pupil teachers in Health Education. Such preparation has long been much needed. Children will then be able to understand what is being taught and teachers will know how to teach it. Under existing conditions most class room teachers are being expected to teach a subject in which they have had practically no preparation. We can no more expect a teacher to succeed in conducting a program of Health Education without proper preparation, and a sensible, workable program for childhood instruction to guide her, than we can in English or any other subject.

To be successful Health Education needs:

To be made simple and understandable in its content.
To be integrated with the regular school curriculum.
To be taught by the classroom teacher who knows the subject and how to teach it.

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WHAT SHOULD HEALTH EDUCATION MEAN TO A SCHOOL HEALTH PROGRAM?

Not long ago several members of the American Association of School Physicians were asked what in their opinion should Health Education Mean to a School Health Program?

Some interesting replies were received. One member, prominent in health education in a large university, said: "It should mean the building up and maintenance of sound, vigorous, long-lasting, energy-generating body machines, free from physical, mental, emotional and social handicaps, whereby the boy or girl will be able to make the proper social adjustment, live a happy and useful life, satisfactory to the individual and to the society in which the person lives."

Another prominent physician said: "It may mean much or nothing, dependent on its character, its placement, or its application."

"It should be the center of organization of the school around which all other activities resolve."

Another says: "It should mean a healthy environment of buildings and grounds, the motivation of health instruction to children. A careful medical examination of every child with correct diagnosis and the assurance of proper treatment of defects."

Another thinks: "It should mean the elimination of repeaters, except in hopeless cases; a reduction of illiteracy in the nation; healthier fathers and mothers and their children; less crime and poverty; greater confidence in the child to succeed."

Another says: "To me it means the most important of the entire

school activity. By Health Education I think of those habits, attitudes, ideals, and that information acquired by children in the process of school experience which results in improved health broadly conceived. In my opinion it would not be far amiss to call the entire School Health Program one of health education."

Another says: "I deem the Health Education Curriculum the cornerstone of the whole school health program."

Another leader in the field says: "It should strengthen the entire school system, building better health for the present and future."

One aptly replies: "If health education occupies the place in the health program that it is presumed to, then one is compelled to answer this question by saying that health education is the basis of not only the School Health Program, but the School Program itself."

Another member on the Pacific Coast thinks: "It should mean the incorporation of health motives into every subject to the fullest extent possible. In doing this the subject should be made so pleasant that the pupil will absorb the necessary information and make the living of health habits a procedure that will be carried on unconsciously."

Again we are told that "Health Education should permeate the entire school system. Pupils should be taught to achieve personal health and to acquire an intelligent understanding of its underlying principles."

One long identified with Health Education expresses the opinion that "Health Education in the public schools should be a systematic program for providing those experiences in the child's day which lead to the development of habits, attitudes and knowledge, contributing to the best possible mental and physical health. It should be essentially an activity of the classroom teacher."

Many other similar replies were received. They came from coast to coast, from border to border, and from Canada.

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SCHOOL LUNCHES REQUIRE PARENTS' CAREFUL SUPERVISION

On cold wintry days when many children bring their lunches to school, the school lunch constitutes a great problem. It is not easy to keep food clean and attractive when it must be packed and carried to school. Foods that are merely filling are not the best in the noon-day lunch. Milk, eggs, butter, fruits and vegetables are the most desirable foods.

Schools that serve lunches have a decided advantage over other schools, and schools that supply milk at the lunch hour to their pupils are showing greater concern for their pupils' welfare than those which make no effort at all to solve this problem. Some schools cooperate with the parents in preparing a hot dish for all the school children.

But the child who has to bring his own lunch, with no possibility of milk or any assistance from the school, needs special care by the mother. A cheese sandwich with plenty of butter will help to meet

the child's requirement for calcium and vitamin A otherwise supplied by milk. A tomato, an orange or other fruit is the more important if the child must do without milk at lunch.

Waxed paper, paper napkins, paper cups, plates and covered containers and the paper bag have largely displaced the inconvenient and unsanitary lunch box or lunch basket, according to the U. S. Department of Agriculture.

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GEOGRAPHICAL DISTRIBUTION OF MEMBERS OF THE AMERICAN ASSOCIATION OF SCHOOL PHYSICIANS

As of February 23rd, 1933

Australia	1	Montana	1
Canada	30	Nebraska	2
Cuba	2	Nevada	1
Hawaii	1	New Hampshire	3
Japan	1	New Jersey	77
Alabama	3	New York	251
Arkansas	3	North Carolina	4
California	66	Ohio	77
Colorado	2	Oklahoma	2
Connecticut	21	Oregon	8
District of Columbia	3	Pennsylvania	172
Florida	1	Rhode Island	3
Illinois	28	South Carolina	1
Indiana	11	South Dakota	3
Iowa	8	Tennessee	2
Kansas	1	Texas	9
Louisiana	8	Utah	1
Maine	1	Vermont	2
Maryland	9	Virginia	4
Massachusetts	98	Washington	3
Michigan	32	Wisconsin	8
Minnesota	18	Wyoming	1
Missouri	13		
		TOTAL	996

Membership in the Association now extends to 43 states, including the District of Columbia, Cuba and Hawaii. Three other countries are also represented.

Before this BULLETIN reaches its readers the Association will have more than 1,000 members. Twenty-five new members were added in February.

Subscriptions for THE BULLETIN are also increasing. Should the present growth continue, it will soon be necessary to each month publish 1,300 copies to meet the increasing popularity of the Association and its BULLETIN. All of which is most gratifying to those of the Association who are devoted to its progress.

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GOOD FOR THE SOUL

It would be of benefit to our souls if we teachers would take time enough each day to ask ourselves whether we have destroyed any ambitions, engaged in unjust criticisms, humiliated or belittled a sensitive child, embittered anyone in our charge by the use of sarcasm, or made one of them the butt of a joke. —*The Indiana Teacher.*

CHANGES IN DEATH CAUSES

The Metropolitan Life Insurance Company, the largest organization of its kind in the world, has made among its millions of policyholders a study of the causes of death at the present time and thirty years ago, and found many notable changes, as is shown by the following lists:

1900-1904	1925-1929
1. Tuberculosis	1. Heart disease
2. Pneumonia	2. Cancer
3. Heart disease	3. Pneumonia
4. Nephritis	4. Nephritis
5. Diarrhea and enteritis	5. Apoplexy
6. Apoplexy	6. Tuberculosis
7. Cancer	7. Premature birth
8. Uncertain	8. Influenza
9. Old age	9. Diabetes
10. Bronchitis	10. Automobile
11. Meningitis	11. Angina pectoris
12. Diphtheria	12. Diarrhea
13. Premature birth	13. Accidental falls
14. Typhoid	14. Appendicitis
15. Influenza	15. Suicide
16. Paralysis	16. Cong. formation
17. Congenital debility	17. Puerperal
18. Convulsions	18. Hernia
19. Diseases of stomach	19. Bronchitis
20. Lack of care	20. Diphtheria

The lesson to be learned from these interesting facts is that mortality from diseases which may be controlled by public health measures, such as pure water supplies, or quarantine, is lessening, while deaths from diseases due to unwholesome habits are increasing.

—*Good Health.*

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A CODE FOR PROFESSIONAL MEN

The Toledo Academy of Medicine *Bulletin* for November carried the following paragraph, attributed to the Honorable Charles E. Dawes: "If you work in a profession, in heaven's name work for it. If you live by a profession, live for it. Help advance your co-worker. Respect the great power that protects you, that surrounds you with the advantages of organization, and that makes it possible for you to achieve results. Speak well for it. Stand for it. Stand for its professional supremacy. If you must obstruct or decry those who strive to help, why—quit the profession. But as long as you are a part of a profession, do not belittle it. If you do, you are loosening the tendrils that hold you to it, and with the first high wind that comes along, you will be uprooted and blown away and probably you will never know why."

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This is a great age of convenience when one gets his food from cans, sermons by radio, and babies from foundling asylums.

—*Ohio State Journal.*

HOW TO KILL A MEDICAL SOCIETY

Don't come to the meetings. If you do come, come late. If the weather doesn't suit you, don't think of coming. If you do attend a meeting, find fault with the work of the officers and other members. Never accept office, as it is easier to criticize than to do things. Nevertheless, get sore if you are not appointed to a committee; but if you are, do not attend the committee meetings.

If asked by the chairman to give your opinion regarding some important matter, tell him you have nothing to say. After the meeting, tell everyone how things ought to be done. Do nothing more than is absolutely necessary, but when other members roll up their sleeves and willingly and unselfishly use their ability to help matters along, howl that the organization is being run by a clique. Hold back your dues as long as possible, or don't pay them at all. Don't bother about getting new members. —*The Aesculapian.*

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BOYS' WEEK

April 29th to May 6th, 1933, has been designated Boys' Week by the National Boys' Week Committee for the United States. It will be the Fourteenth Annual observance of a national program for the advancement of boyhood welfare. A program for every day has been arranged. It begins on Saturday with "Boys' Loyalty Day," followed by "Boys' Day in Churches," "Boys' Day in Industry," "Boys' Day in Schools," "Boys' Day in Entertainment and Athletics," "Boys' Health Day and Evenings at Home," "Boys' Day in Citizenship," and "Boys' Day Out of Doors."

Boys' Week has rapidly grown in popular favor from its beginning. It is sponsored and directed by many of the finest citizens in the country. It should enlist the interest and participation of every organization, yes, every person, concerned with boyhood welfare.

The committee has prepared a manual of suggestions for the week's observance, which will be mailed gratis on application. Address, National Boys' Week Committee, Room 820, 211 West Wacker Drive, Chicago, Illinois.

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RHEUMATOID ARTHRITIS VACCINE

Dr. Russell Cecil, Professor of Medicine, Cornell Medical School, New York City, is the sponsor of this vaccine. The original article concerning it appeared in the *Archives of Internal Medicine* in May, 1929. Another interesting article on the advance made with this therapy appeared in the *American Journal of Medical Science* in January, 1932.

The vaccine consists of various strains of streptococcus hemolyticus and viridins which have been isolated from pathological joints. They are run through a series of rabbits to increase their virulence. At first the procedure was to use a very concentrated solution subcutaneously. Experience, however, showed that better results were obtained through the intravenous method with a weaker solution. The procedure now is to start the patient off intravenously on one-half c. c. of the solution, content one million organisms. The dose is repeated in a week's time, but the quantity used is one c. c. The strength is then stepped up to a ten million concentrate and there three-tenths c. c. is usually given first, and if the patient stands this without too much reaction, one c. c. is the next dose. Experience here has shown that some thirty or forty million organisms can be given without too much discomfort. The reaction usually occurs the following day and consists of headache, some fever and general malaise. It is aimed to keep the dosage just under the point of reaction.

The vaccine is obtained from Lederle Laboratories, 511 Fifth Avenue, New York City. When first produced in commercial form it was most expensive, $15.00 for a small bottle. However, a practical point here is to order a five c. c. bottle of the concentrated solution, one billion organisms strength, and dilute this down with normal saline to the desired strength. The expense here is about $2.50 and will give enough vaccine for a number of patients.

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BAD FOR THE EYE

Faulty diet may lead to serious eye maladies, reports Dr. Park Lewis, vice-president of the National Society for the Prevention of Blindness, in the current issue of *The Sight Saving Review*. The absence of Vitamin A from the diet, for instance, causes "night blindness," which is manifested by a difficulty in seeing under faint illumination, as in twilight. This is only one of a number of different eye conditions that result from diet deficiency.

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CAREFUL

Whenever I go walking I always cross with care
The intersections of the streets, for cars are passing there.
I keep my eyes right on the light, and if it's red I know
That I must stop—but if it's green it's safe for me to go.

—MABEL NIEDERMEYER.

BOOK REVIEWS

GROWTH AND DEVELOPMENT OF THE CHILD

PART I. GENERAL CONSIDERATION

Published by the Century Company, New York City. Price $3.00.

This is the introductory volume in the series of four, which, more completely than any previous study, treats the factors contributing to the growth and development of children from conception to maturity. The study as a whole represents the report of the White House Conference Committee on Growth and Development, of which Kenneth D. Blackfan, M. D., was Chairman.

The report focusses very largely upon normal growth but in rounding out its study deals also with the obstacles to normal growth and development which may be imposed by disease and by socio-economic circumstances. It indicates those places where data are lacking or inadequate and points the pathways to further knowledge and research.

This introductory volume and the four which supplement it, while written for the professional audience, and invaluable for technical study and digestion, present in clear terms the romance of human growth. In this report, summarized, is a consideration of such subjects as: the interaction between heredity and environment, fraternal and identical twins, the factors influencing differences in human types, sleep and repose, fatigue, the influence of atmospheric conditions, the relation of body mechanics to health, and others.

Every school physician would find this volume of great assistance in his or her work.

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ALCOHOL AND MAN

BY ALES HRDLICKA

American Journal of Physical Anthropology, Oct.-Dec., 1932

A timely, highly authoritative, and objective, and socially as well as medically and scientifically important series of treatises, on the influence of alcohol on man, his functions and his mentality. A wealth of reliable, unbiased information "essential to the best interests of modern man and his social organizations."

A critical review of these communications fails to reveal the only too common bias of writings of such a nature. They deal with the subject purely on the bases of evidence obtained through experiment and cautious observation. If they point out the general harmfulness of larger doses of alcohol, it is only the result of unequivocal evidence of such harmfulness in all lines of approach of the questions.

The volume cannot but prove of distinct value to the field of social problems of present and future humanity. It is well printed and bound, and altogether a creditable and highly useful production.

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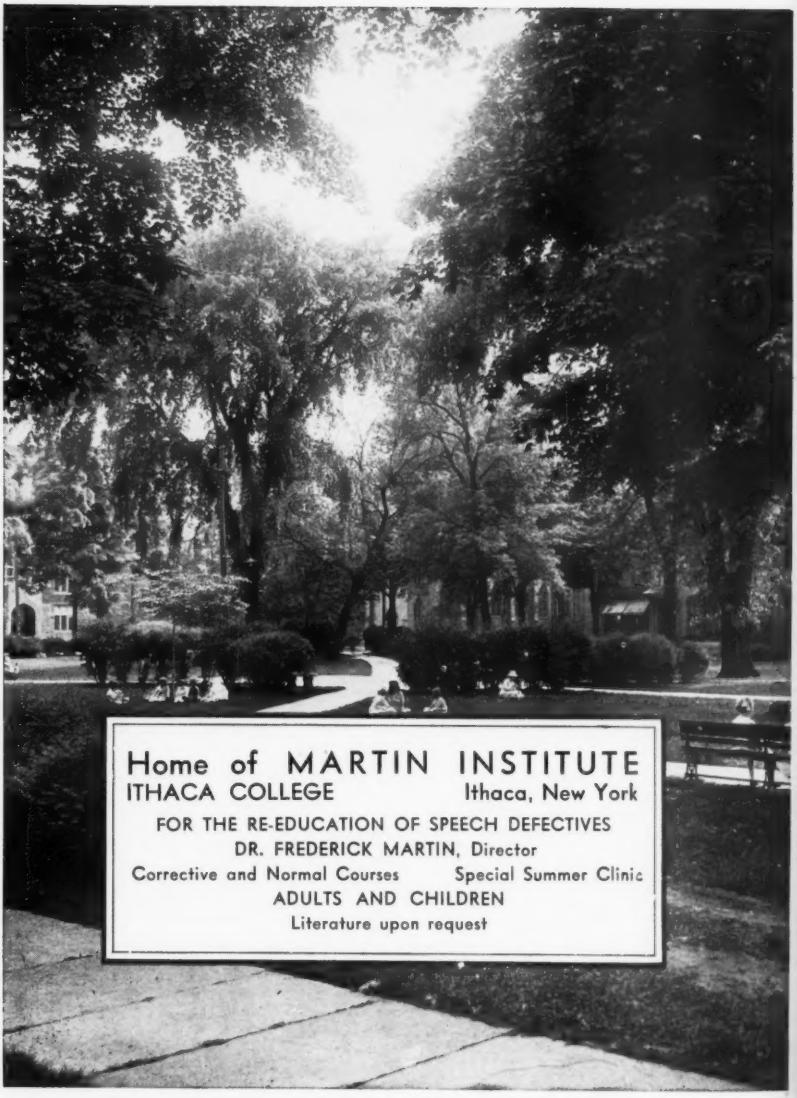
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